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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,398	03/01/2004	Meng-Tsung Lo	MSCP0021USA	2397
27765	7590	11/27/2007		
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION			EXAMINER	
P.O. BOX 506			KHOLDEBARIN, IMAN K	
MERRIFIELD, VA 22116				
			ART UNIT	PAPER NUMBER
			3737	
			NOTIFICATION DATE	DELIVERY MODE
			11/27/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/708,398

Applicant(s)

LO ET AL.

Examiner

I Kenneth Kholdebarin

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/3/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/03/2007 has been entered.

Response to Argument

2. Applicant's arguments with respect to claim 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1- 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miele (US 2002/0055680).

5. Miele teaches an ultrasonic vein detector for detecting the position of a vein in a specific part of an examinee / wrist (See fig. 6), the detector comprising:

- an ultrasonic emitter / ultrasonic transducer (604) having an oscillator (620) for generation indicative pulse ultrasonic signals toward the examinee (see paragraph [0103]);
- a pulse presser / brace pulse transducer (1000) for applying pulse stress signals to the part of the examinee /skin (606) (See paragraph [0098]), with different frequency of the heartbeat;
- an ultrasonic sensor / ultrasonic transducer (604), for sensing the back waves which is the reflection of the indicative pulse ultrasonic signals hitting every reflecting point of the part of the examinee (see paragraph [105]), and converting them into electrical signals / step 2006, fig. 20 (See paragraph [0169]), and an inherent microprocessor for receiving the electrical signals from the ultrasonic sensor and calculating the Doppler shift of the electrical signals generated from the back waves in order to find the reflecting points corresponding o the pulse stress signals(See paragraph [0021] and [0075]).

The “transducer” used by Miele is meant to include any type of sensor capable of sensing /receiving one parameter and generation or transmitting a signal based thereon, or alternatively capable of receiving a signal and generating some physical response thereto (see paragraph [0098]).

Furthermore Miele discloses storage / digital signal processing devices (610) to perform digital signal processing requires storing the data for conversion, for storing the electrical signals outputted by the ultrasonic sensor (604), (See fig. 6, also paragraph [0075] and [0099]).

Miele also discloses a method comprising:

(a) emitting an indicative pulse ultrasonic signal toward the examinee from an emitting point; the ultrasound transducer (604) will perform the aforementioned method step (See fig. 3A, step 308, also paragraph [0075]);

(b) applying pulse stress signals on the examinee, wherein the frequency of the pulse stress signals is different to the frequency of the pulse ultrasonic signal and the heartbeat of the examinee; the pressure transducer (602) will perform the aforementioned method step. (See fig. 3A, step 308, also paragraph [0075]);

(c) sensing a back wave which is the reflection of the indicative pulse ultrasonic signals hitting from the part of the examinee and converting it into an electrical signal; the ultrasound transducer (604) will perform the aforementioned method step (See fig. 3A step 310, also paragraph [0075] and [0100]);

(d) calculating the Doppler shift of the electrical signal generated from the back wave in order to find the reflecting point corresponding to the pulse stress signal (See fig. 3A step 312, also paragraph [0075]). And further Miele discloses method for the pulse stress signal to be non-periodic (See paragraph [0008]).

Although Miele **does not** teach having the ultrasound transducer separate and moveable with respect to the pulse presser Miele discloses by referring to FIGS. 8 and 9, one embodiment of the applanation and transverse positioning device 800 of the invention is illustrated. The device 800 is adapted to receive a transducer housing element 822 in the lower extensive portion 801 thereof. The transducer housing element contains the aforementioned pressure and ultrasonic transducers 602, 604 therein, the latter physically being combined into a single transducer element, although other configurations including a tandem ultrasonic/pressure configuration (not

shown), or an array of multiple pressure and/or ultrasonic transducers, may be used. The transducers 602, 604 are free to move within the housing 822 in the sagittal direction 831 and the transverse direction 833 with respect to the artery, as driven by the applanation and positioning motors 842, 844. The housing element 822 of the present embodiment contacts the wrist skin circumferentially around the transducers 602, 604 which move with respect to the housing element 822 and the skin, although it will be appreciated that a variety of different configurations and methods may be used. For example, a substantially compliant housing which conforms to the tissue of the subject, yet allows the transducers 602, 604 to move in the desired directions within an aperture therein, may be substituted. When adhered to the wrist using the wrist brace disclosed herein in FIG. 10 (or other retaining mechanism), the active surface 810 of the transducers 602, 604 is in variable contact with the skin of the wrist, and roughly flush with the bottom edge of the housing element 822. The top of the transducers 602, 604 include an electrical connection 837 to the power supply 838 of the applanation and transverse positioning assembly 800, as well as to circuitry for processing the pressure and ultrasound signals from the transducers. therefore the pressure transducer and the ultrasound transducer can be separately provided and that various different configurations are possible. Furthermore, the reference discloses on page 9, that the ultrasound transducer can be manually positioned to achieve a desired response.

Considering the above teachings and suggestions it would have been obvious to one ordinary skill in the art at the time of the invention was made to have provide the ultrasound probe separate from and moveable with respect to the pulse presser in order to move the ultrasound transducer to a position which would allow the desired response to be detected.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to I Kenneth Kholdebarin whose telephone number is 571-270-1347. The examiner can normally be reached on M-F 8 AM- 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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